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Stennett

Tobacco, alcohol and drug use  
reported by London secondary  
school students (preliminary  
report)

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TOBACCO, ALCOHOL AND DRUG USE  
REPORTED BY  
LONDON SECONDARY SCHOOL STUDENTS  
( PRELIMINARY REPORT )

A JOINT PROJECT  
OF  
THE ADDICTION RESEARCH FOUNDATION  
AND  
THE BOARD OF EDUCATION  
FOR THE  
CITY OF LONDON

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ADDICTION RESEARCH FOUNDATION

MARCH, 1969

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# TOBACCO, ALCOHOL AND DRUG USE REPORTED BY LONDON SECONDARY SCHOOL STUDENTS: PRELIMINARY REPORT

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This study was sponsored jointly by the Addiction Research Foundation (ARF) and the Board of Education for the City of London. The facts developed resulted from the cooperative efforts of many people. Dr. C.Aharan, Director of the London Branch of ARF, was the major architect of the study. He was assisted by Dr. D.Cram, Coordinator of Medical Services for the London Board of Education, and the authors of this preliminary report. The willing cooperation of the students and faculty of London's secondary schools made the study possible.

It is important to remember that this is a preliminary report deliberately designed to summarize concisely the major gross facts about the extent to which students report the use of tobacco, alcohol and drugs. The basic breakdown of the data is in terms of grade and sex. Other more detailed analyses will be prepared both by the authors and Dr. Aharan.

## METHOD

### Population

All of the students enrolled in all grades of all twelve, London secondary schools were given the opportunity to participate in this study; less than one half of one percent declined. After careful editing to delete questionnaires which either contained gross inconsistencies or in which the student's attitude was obviously not sufficiently serious, 11,454 records remained. Fifty-one percent of the usable student records were completed by boys, 49% by girls.



## Questionnaire

The questionnaire was administered simultaneously at 9 a.m. on the 17th of May, 1968 to all students by their home-room teachers in such a way as to guarantee the individual student's anonymity. It was completed within one class period.

The questionnaire, presented as Appendix A to this report contains 75 items and a five-concept semantic differential test. The items were allocated as follows:

<u>Items</u>	<u>Content</u>
1 - 5	Identifying information
6 - 18	Background information on student and family
19 - 25	Tobacco use and attitudes toward tobacco
26 - 33	Alcohol use
34 - 46	Attitudes toward use of alcohol
47 - 57 & 75	Drug use
58 - 67	Test of knowledge about drugs
68 - 74	Attitudes toward use of drugs

Semantic differential on concepts of self, heavy drinker, moderate drinker, non-drinker, marijuana user.

## Treatment of Data

Each student questionnaire was checked carefully for internal consistency and evidence of a lack of a serious attitude on the part of the student. Questionable records, with as little as one frivolous comment, were excluded. The information contained in the questionnaires was coded and punched into cards. Preliminary analyses were done to locate and correct errors. The edited data were then transferred to magnetic tape and sorted into order by grade and sex. Using a specially-prepared computer program,

frequency distributions, means, variances and case counts were made, separately for each of the ten grade-sex groups, for each of 142 variables. Computations condensing the data across grade levels were done using a desk calculator.

## FINDINGS

In the interests of brevity and clarity, most of the findings are presented in graphical or tabular form with minimal accompanying text.

Each of the three major substantive areas (tobacco, alcohol and drugs) is described in terms of: incidence of use; rate of consumption; location in which consumption occurs and students' attitudes toward the substance(s).

Each major area begins with a graphical overview giving the percent of students using the substance, their consumption rates and the intent of non-users<sup>1</sup> concerning possible future use. A series of additional graphs or tables fill in the most important details. Textual material merely explains or elaborates the graphs or tables.

No inferences or conclusions are drawn since it is believed that more detailed analyses are required to justify that level of interpretation. The intent of the report is merely to "present the facts".

## TOBACCO

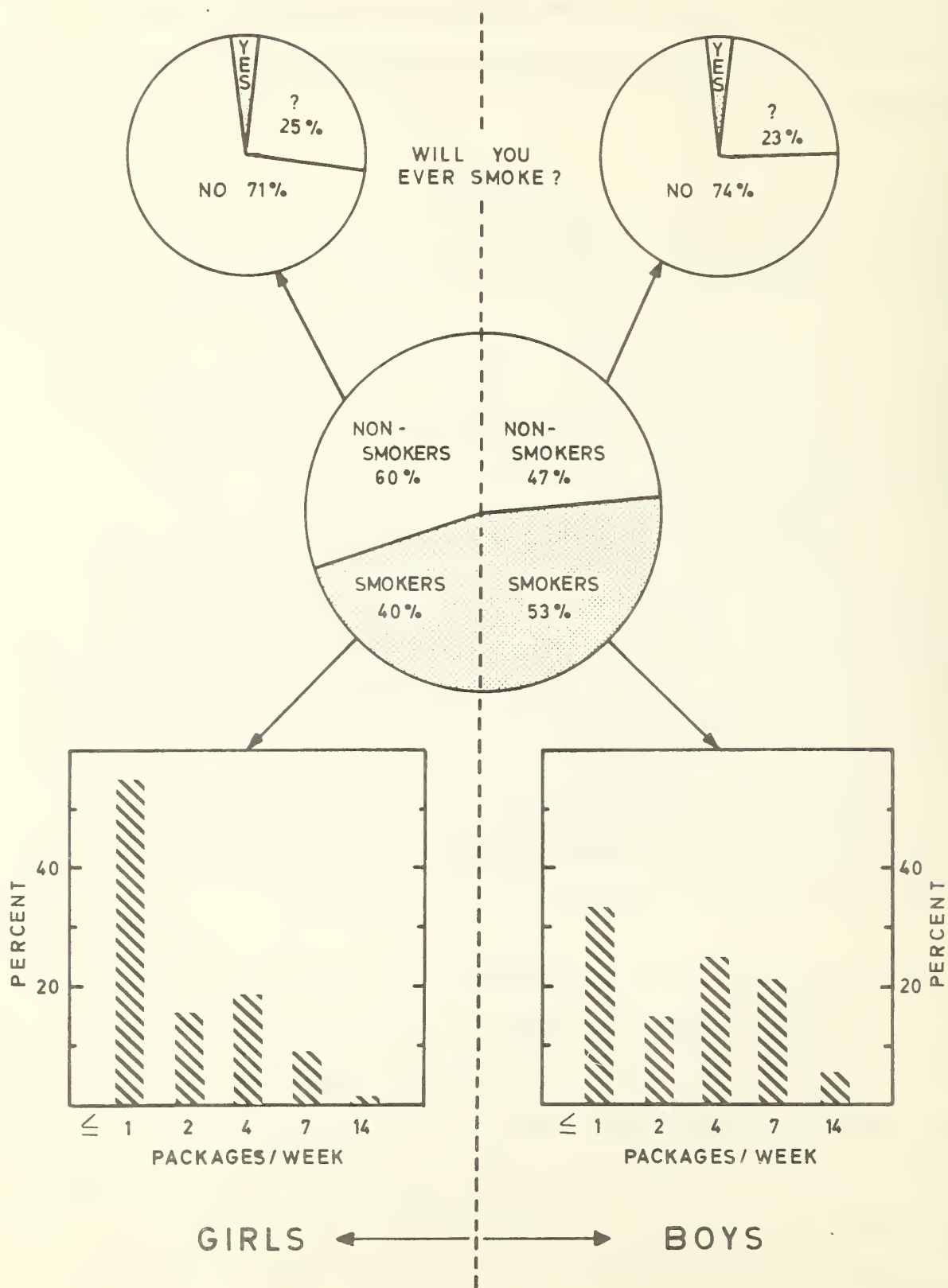
The large pie-graph in Figure I.1 gives the response of boys and girls to Q.19<sup>2</sup>, "Do you smoke?". A "yes" response was required if a student smoked as little as one package a year.

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<sup>1</sup>Except in the case of drugs, for which the future intent of those who have used drugs is depicted.

<sup>2</sup>This abbreviation is used throughout this report to refer to individual questions in the questionnaire; thus, Q.19 = Question 19.

FIGURE I.1 TOBACCO: INCIDENCE, CONSUMPTION RATE AND FUTURE INTENT TO USE  
(Questions 19, 21, 22)





The future intent of non-smokers, as revealed by their answers to Q.21, "Do you think you ever will smoke?", is given in the two small pie-graphs at the top of Figure I.1.

The student smokers' rate of consumption is presented in the two bar-graphs at the bottom of Figure I.1. These data were derived from the students' answers to Q.22.

These data indicate that the boys' pattern of smoking behavior differs significantly from that of the girls. More boys (53%) than girls (40%) smoke and the boys are heavier smokers. The future intent of non-smokers does not vary extensively as a function of sex: about 72% of all non-smokers do not intend to begin smoking; about 24% are uncertain and 3-4% say they will smoke at some time in the future.

If one accepts 'heavy smoking' to mean five or more packages per week, 27% of the boys and 11% of the girls *who smoke* would be described as 'heavy smokers'. In terms of the *entire population* of high school students, 14% of the boys (27% of 53%) and 4% of the girls (11% of 40%) would be classified as 'heavy smokers'.

The student smokers' responses to Q.20 indicate that, on the average, boys have been smoking 3-4 years, girls 2-3 years. It is also apparent that the majority of grade 9 boys (80%) and girls (60%) who smoke took up the practice before entering high school.

### Tobacco: Incidence

Figure I.2 gives the grade-sex distribution of students who responded "yes" to Q.19. It is apparent that a larger percentage of students in the upper grades, except grade 13, smoke than do those in the lower grades.

- 6 FIGURE I.2 PERCENTAGE OF STUDENTS, BY GRADE AND SEX, RESPONDING "YES" TO Q.19, "DO YOU SMOKE?"

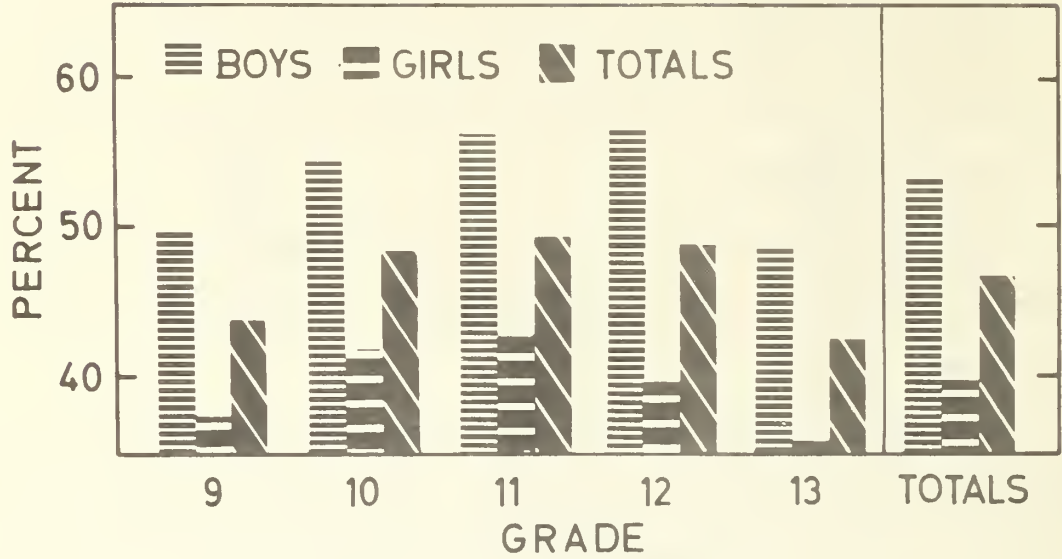
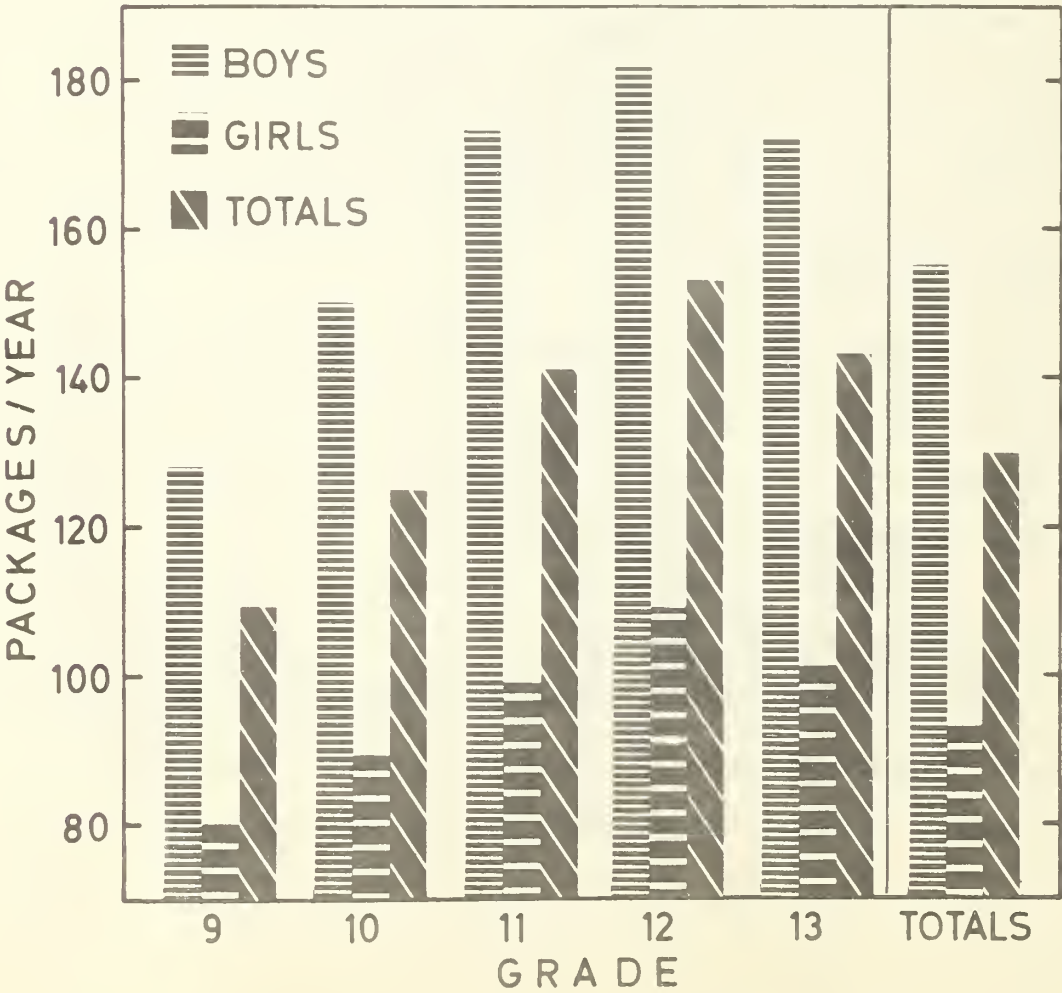


FIGURE I.3 AVERAGE NUMBER OF PACKAGES OF CIGARETTES SMOKED PER YEAR BY GRADE AND SEX (Question 22)



It should be noted that since this study is cross-sectional rather than longitudinal, the systematic trends over the grades apparent in Figure I.2, and all others in this report, can *not* be regarded as growth curves. It is important to bear in mind that, whereas the grade 9 class represents the complete population of young people in the city of their age, the grade 13 class does not. In other words, the data for grade 13 students do *not* describe the behavior of all young people who started out in grade 9 five or six years ago, but only the behavior of those who remained in school. Grade 13 students differ in many highly significant ways, in addition to age, from grade 9 students.

It is, therefore, *not* correct to infer from Figure I.2 that many students tend to give up smoking when they reach grade 13. It is more likely true (although impossible to determine at this level of analysis) that the students who continue their schooling to grade 13 either smoke less as a group or start smoking at a later age.

#### Tobacco: Consumption

Figure I.3 gives the tobacco consumption rates by grade and sex (Q.22). In general, the higher the grade level the higher the rate of consumption. The average consumption for all secondary school student smokers is about  $2\frac{1}{2}$  packages per week, at an average cost of about \$60.00 per year.

#### Tobacco: Location of Use

Figure I.4 displays the percentage of student smokers, by grade and sex, who responded "yes" to Q.24, "Do you smoke in the presence of your parents?". More male than female students and more students in the senior grades than those in the lower grades smoke in the presence of their parents.

FIGURE I.4    PERCENTAGE, BY GRADE AND SEX, OF STUDENT SMOKERS SMOKING IN THE PRESENCE OF THEIR PARENTS    (*Question 24*)

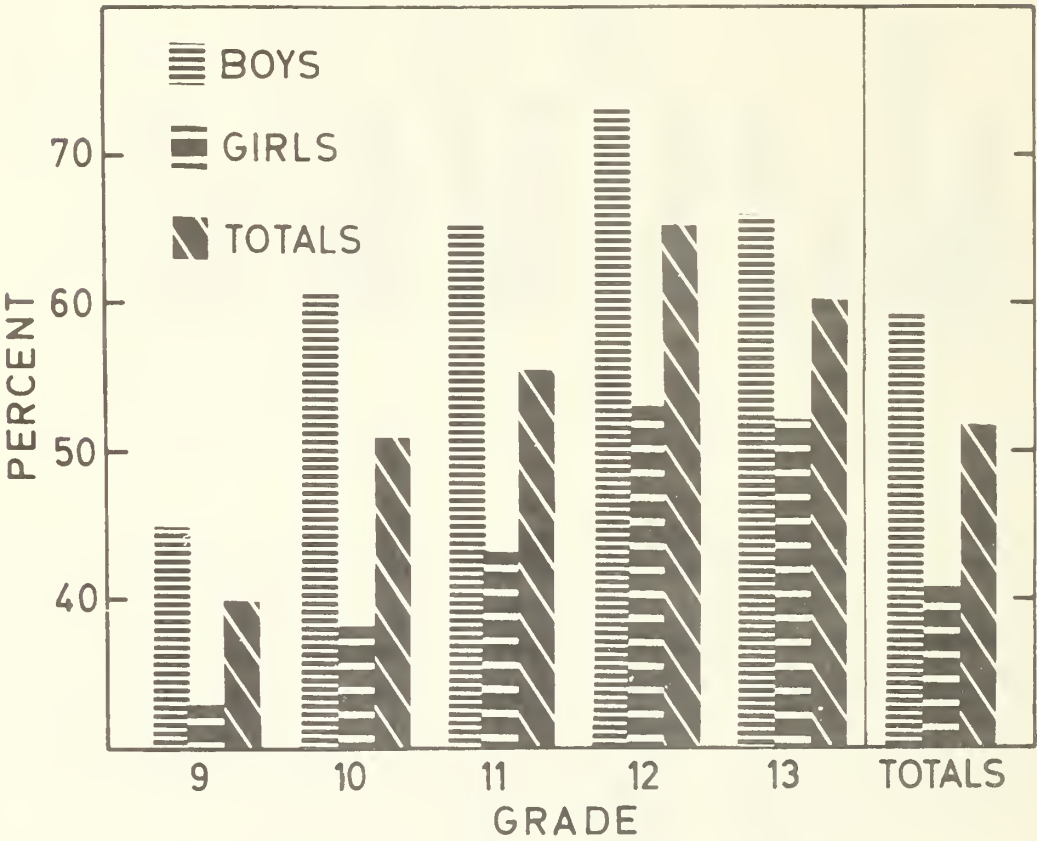
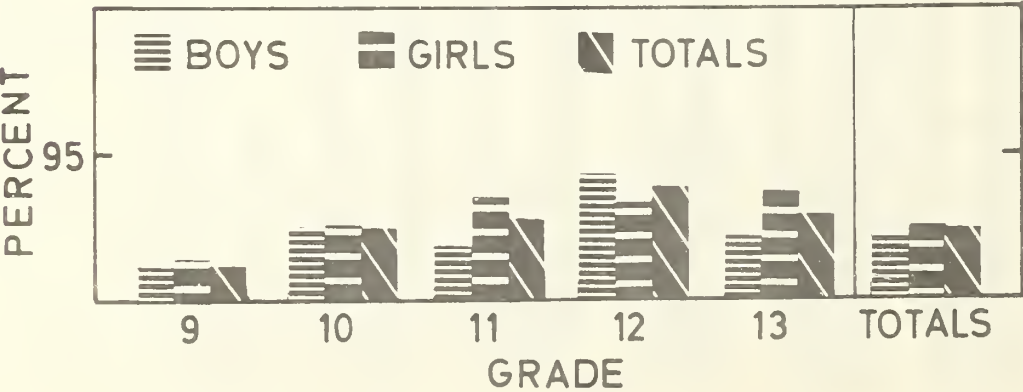


FIGURE I.5    PERCENTAGE OF STUDENTS WHO BELIEVE THERE IS A RELATIONSHIP BETWEEN SMOKING AND LUNG CANCER    (*Question 23*)



## Tobacco: Attitudes

Figure I.5 and I.6 display the percentage of "yes" responses of students to Q.23 and 25 respectively. It is apparent that the vast majority of all students (92%) believe that there is a relationship between cigarette smoking and lung cancer. However, 50% of student smokers acknowledge that knowing that smoking may be damaging to their health is not enough reason for them to stop. The potential deterrent effect of such knowledge is apparently less pronounced in the higher grades than in the lower ones.

FIGURE I.6 PERCENTAGE OF STUDENT SMOKERS WHO AGREE THAT KNOWLEDGE OF THE DAMAGING EFFECTS OF SMOKING ON HEALTH IS NOT A STRONG ENOUGH REASON TO MAKE THEM STOP (Question 25)

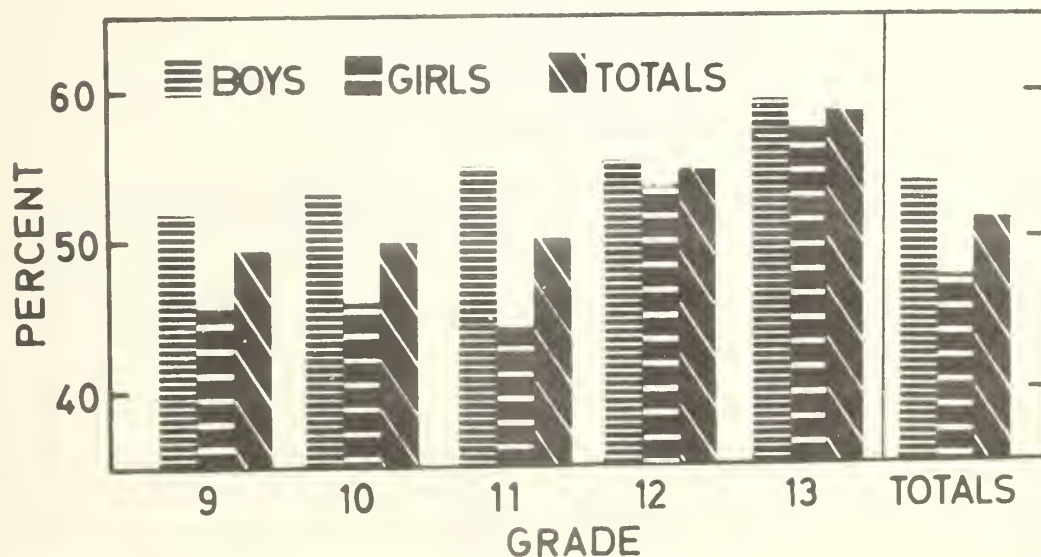
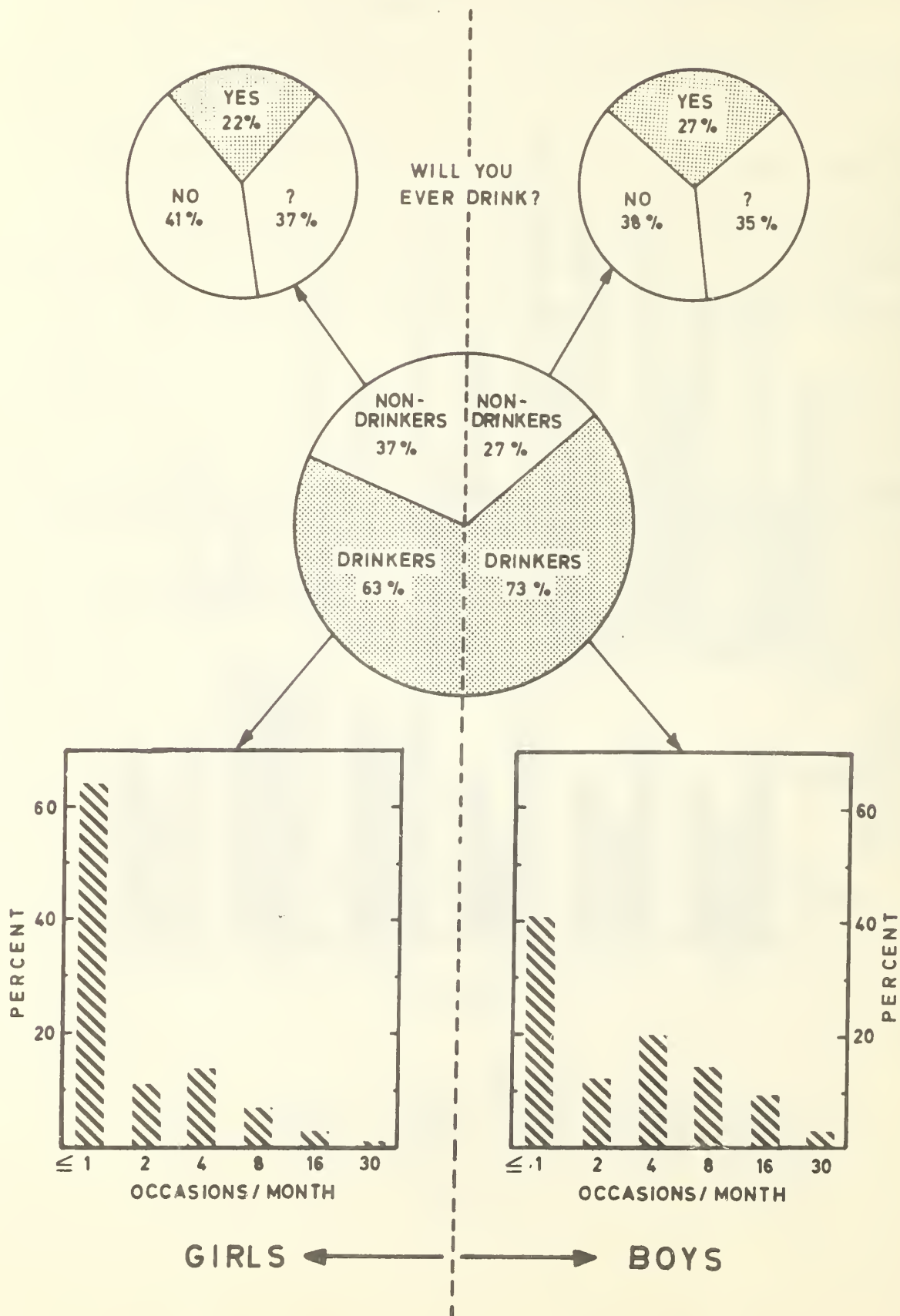




FIGURE II.1 ALCOHOL: INCIDENCE, CONSUMPTION RATE AND FUTURE INTENT TO USE  
(Questions 26, 27 and 30)



## ALCOHOL

The large pie-graph in Figure II.1 gives the response of boys and girls to Q.26, "Do you drink?". A "yes" response was required if a student consumed as little as one drink a year. A drink was defined as one bottle of beer or one ounce of spirits or one, 3-4 ounce glass of wine.

The future intent of non-drinkers, as revealed by their answers to Q.27, "Do you believe you ever will drink?", is given in the two small pie-graphs at the top of Figure II.1.

The student drinkers' consumption is presented in the two bar graphs at the bottom of Figure II.1. These data were derived from students' answers to Q.30.

These data show that the pattern of drinking behavior of boys differs significantly from that of the girls. More boys (73%) than girls (63%) drink and boys are heavier drinkers. The future intent of non-drinkers does not vary extensively as a function of sex: about 39% of all non-drinkers do not intend to begin drinking; about 36% are uncertain and 25% say they will drink at some time in the future.

If one accepts 'frequent drinking' to mean drinking more than once a week, 27% of the boys and 11% of the girls *who drink* could be classified as 'frequent drinkers'. In terms of the *entire population* of high school students, about 20% of the boys (27% of 73%) and 7% of the girls (11% of 63%) would be classified as 'frequent drinkers'.

The student drinkers' responses to Q.29 indicate that, on the average, both boys and girls started drinking at 13-14 years of age. About 40% of both grade 9 boys and girls started drinking when they were less than 13

FIGURE II.2 PERCENT OF STUDENTS, BY GRADE AND SEX, RESPONDING "YES" TO Q.26 "DO YOU DRINK?"

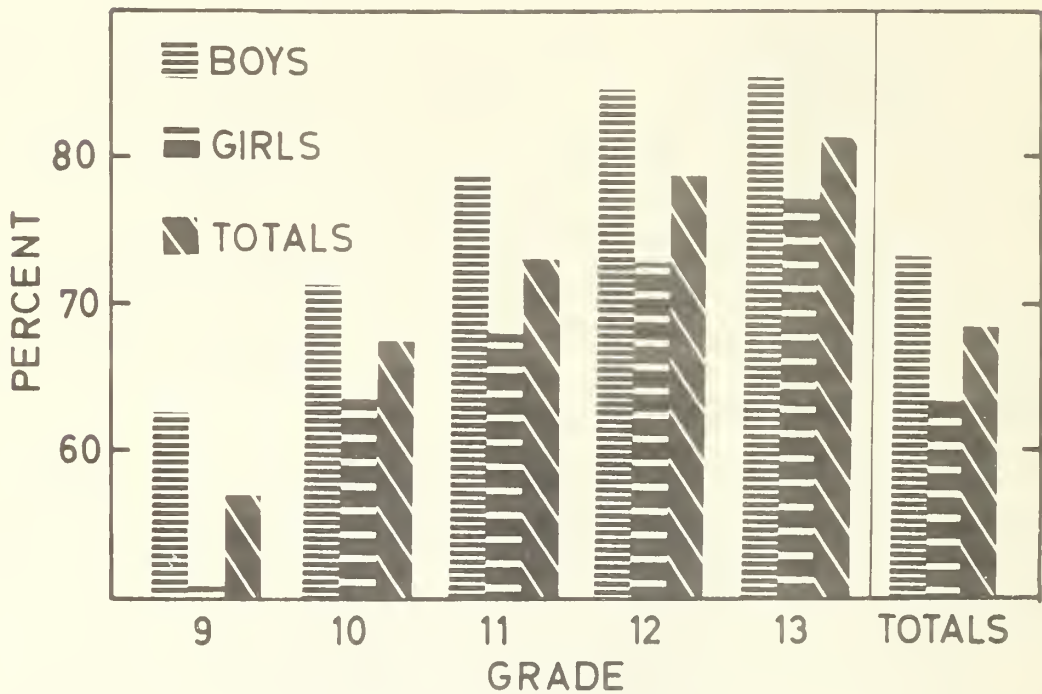
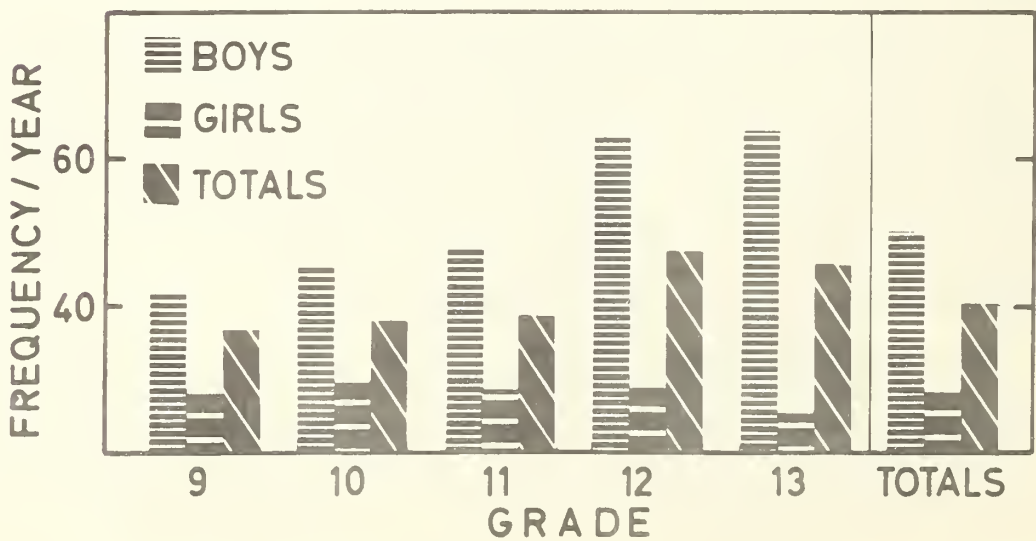


FIGURE II.3 AVERAGE FREQUENCY OF DRINKING OCCASIONS PER YEAR BY GRADE AND SEX (Question 30)



years old. The age at which student drinkers began to drink increases gradually as a function of grade level; grade 13 students, on the average, indicated that they began drinking at around 15 or 16 years of age.

#### Alcohol: Incidence

Figure II.2 gives the grade-sex distribution of students who responded "yes" to Q.26, "Do you drink?". It is apparent that more boys than girls drink and that there is a fairly steady increase in the percentage of students drinking as one ascends the grade levels.

#### Alcohol: Consumption

Figure II.3 gives the frequency of drinking occasions (Q.30) by grade and sex. Figure II.4 gives the average number of drinks consumed on each drinking occasion (Q.31) by grade and sex. These data show that the higher the grade level, the greater the percentage of boys who drink, drink more often, and consume more on each drinking occasion. In contrast, while a larger percentage of upper grade girls drink, they do not consume more or drink more frequently than lower grade girls.

The 'average' high school student consumes 3-4 drinks on about 40 separate occasions a year, at a cost of approximately \$35.00.

Table II.1 describes, by grade and sex, the types of beverage students consume (Q.28).

Figure II.5 gives the frequency per year, by grade and sex, that students get intoxicated. Boys and students in the upper grades apparently get intoxicated more frequently than girls and lower grade students. In general, student drinkers get 'high' or 'drunk' about once a month.

FIGURE II.4 AVERAGE NUMBER OF DRINKS CONSUMED PER DRINKING OCCASION BY GRADE AND SEX (Question 31)

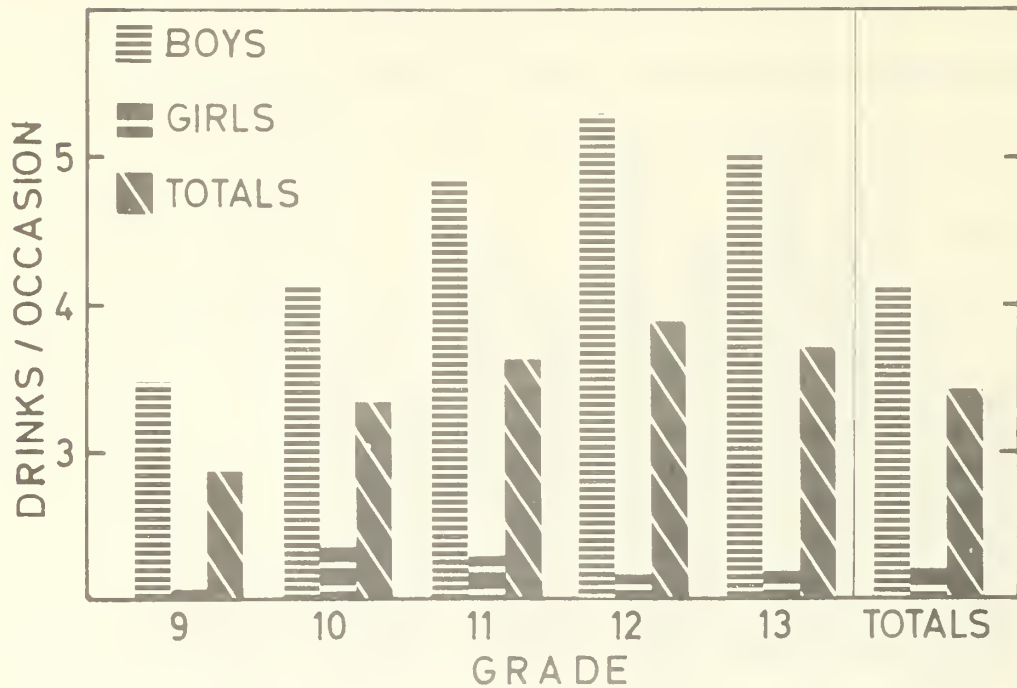


TABLE II.1 STUDENT DRINKERS RESPONSES, BY GRADE AND SEX, TO Q.28, "WHAT TYPE OF BEVERAGE DO YOU USUALLY CONSUME?"

GROUP		PERCENT CONSUMING SUBSTANCE(S)*						
Grade	Sex	Beer	Spirits	Wine	Beer & Spirits	Beer & Wine	Spirits & Wine	All Three
9	M	17	10	25	15	8	8	18
	F	10	16	36	9	7	12	10
10	M	16	15	15	21	7	7	20
	F	7	18	33	11	6	13	12
11	M	20	13	12	26	6	5	17
	F	9	20	29	12	6	13	11
12	M	20	13	8	33	5	5	17
	F	9	22	29	11	4	16	9
13	M	15	12	11	26	4	9	23
	F	4	24	27	7	6	21	10
Totals	M	18	13	16	23	6	7	19
	F	8	19	32	11	6	14	10

\*Percentages are calculated for each grade-sex group.



FIGURE II.5 AVERAGE NUMBER OF INTOXICATION EPISODES PER YEAR BY GRADE AND SEX (Question 35)

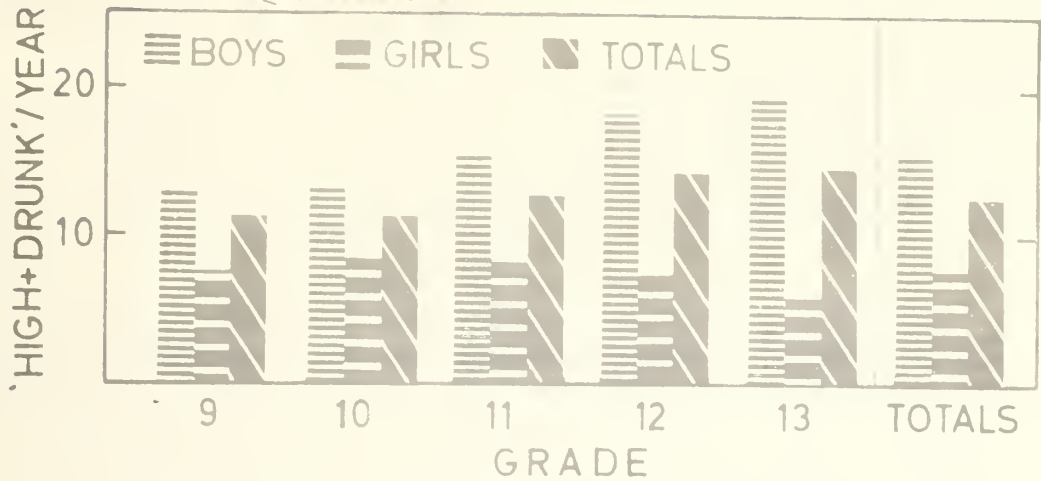


FIGURE II.6 PERCENT OF STUDENT DRINKERS WHO RESPONDED "YES" TO Q.42, "DO YOU DRINK IN THE PRESENCE OF YOUR PARENTS?"

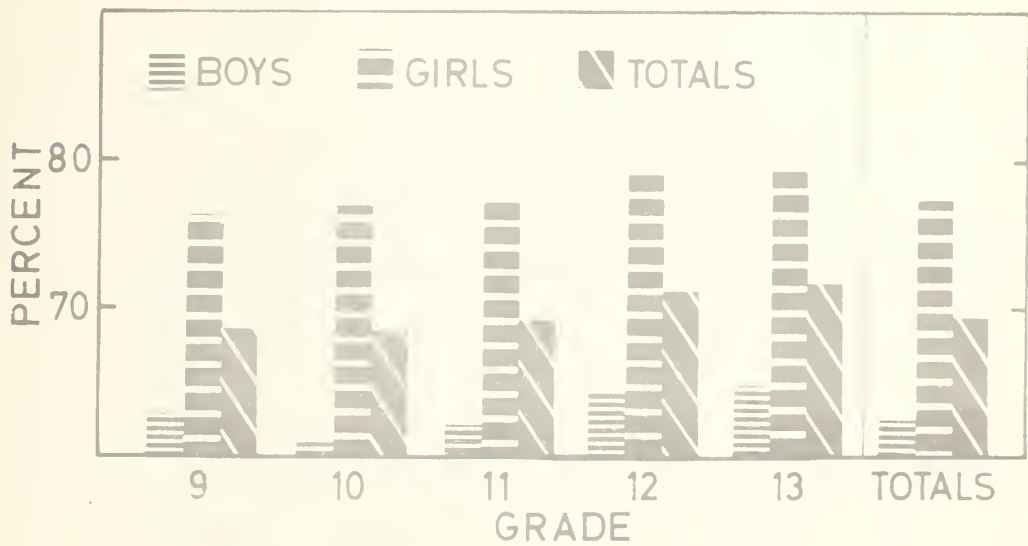


FIGURE II.7 LOCATIONS AT WHICH DRINKING OCCURS, IN PERCENT BY SEX (Question 32)

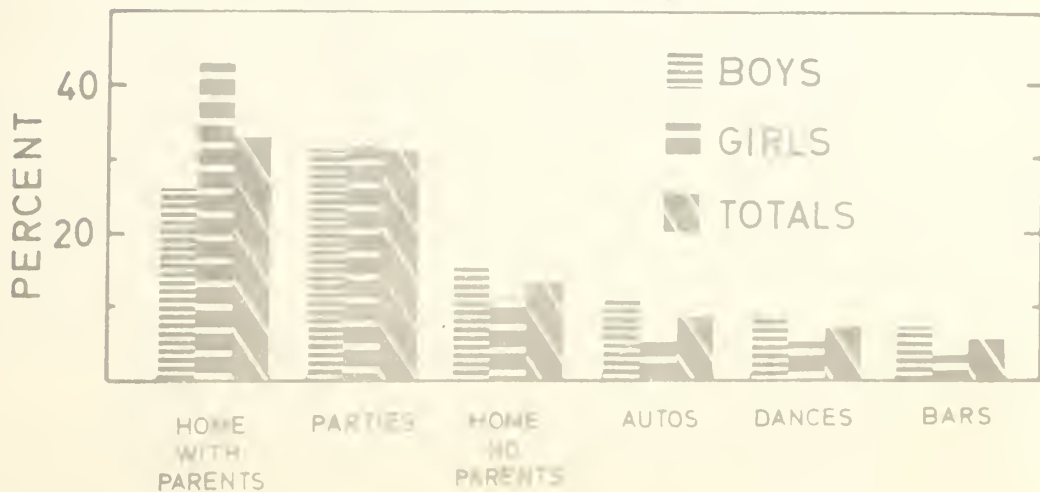


TABLE II.2 STUDENT RESPONSES, IN PERCENT BY SEX, TO QUESTIONS DEALING WITH ATTITUDES TOWARD BEVERAGE ALCOHOL (Questions 34-40, 43, 44)

- Q.34 I drink because I like the way it makes me feel, it reduces shyness, helps me to forget my troubles and enables me to have more fun in social situations.
- Q.35 I drink because most of the people I associate with expect me to and I would be left out of many social situations if I refused.
- Q.36 I drink because it is a normal, or customary practice. (e.g. wine with meals, special celebrations - weddings, birthdays, etc.)

<----- RATING SCALE ----->

Question	Sex	Very Important	Quite Important	Moderately Important	Slight Importance	No Importance
34	Boys	8	10	19	22	42
	Girls	15	7	13	19	46
35	Boys	1	4	9	22	65
	Girls	2	3	5	15	76
36	Boys	13	11	21	22	33
	Girls	20	15	23	22	20

- Q.37 Getting "high", or "feeling good" through drinking, is often good for a person.
- Q.39 There is nothing wrong with getting drunk once in awhile as long as it doesn't harm other people.

<----- RATING SCALE ----->

Question	Sex	Agree Completely	Agree Slightly	Disagree Slightly	Disagree Completely
37	Boys	9	28	22	40
	Girls	4	23	21	52
39	Boys	34	27	14	25
	Girls	17	22	20	36

- Q.38 Whenever the group I associate with throws a party, it is expected that everyone will get "high".
- Q.40 When I drink it is with the intention of getting "high".

<----- RATING SCALE ----->

Question	Sex	Always	Usually	Occasionally	Never
38	Boys	5	16	32	47
	Girls	2	10	28	60
40	Boys	7	21	29	43
	Girls	3	10	23	64

- Q.43 Are you ever worried, or concerned, about the way you drink?
- Q.44 If you are a non-drinker, has your unwillingness to drink been a source of embarrassment to you?

<----- RATING SCALE ----->

Question	Sex	Frequently	Occasionally	Rarely	Never
43	Boys	3	10	19	69
	Girls	2	6	12	80
44	Boys	3	9	14	73
	Girls	3	8	11	78

## Alcohol: Location of Use

Figure II.6 gives the percentage of student drinkers, by grade and sex, who responded "yes" to Q.42, "Do you drink in the presence of your parents?". About 63% of boys and 77% of girls report drinking in their parents' presence.

Figure II.7 gives the locations at which boys and girls do their drinking. Although a good deal of drinking is done with supervising adults present, a substantial amount is done in 'unsupervised' situations. The fact that about 10% of the drinking done by male drinkers occurs in automobiles is especially noteworthy.

## Alcohol: Attitudes

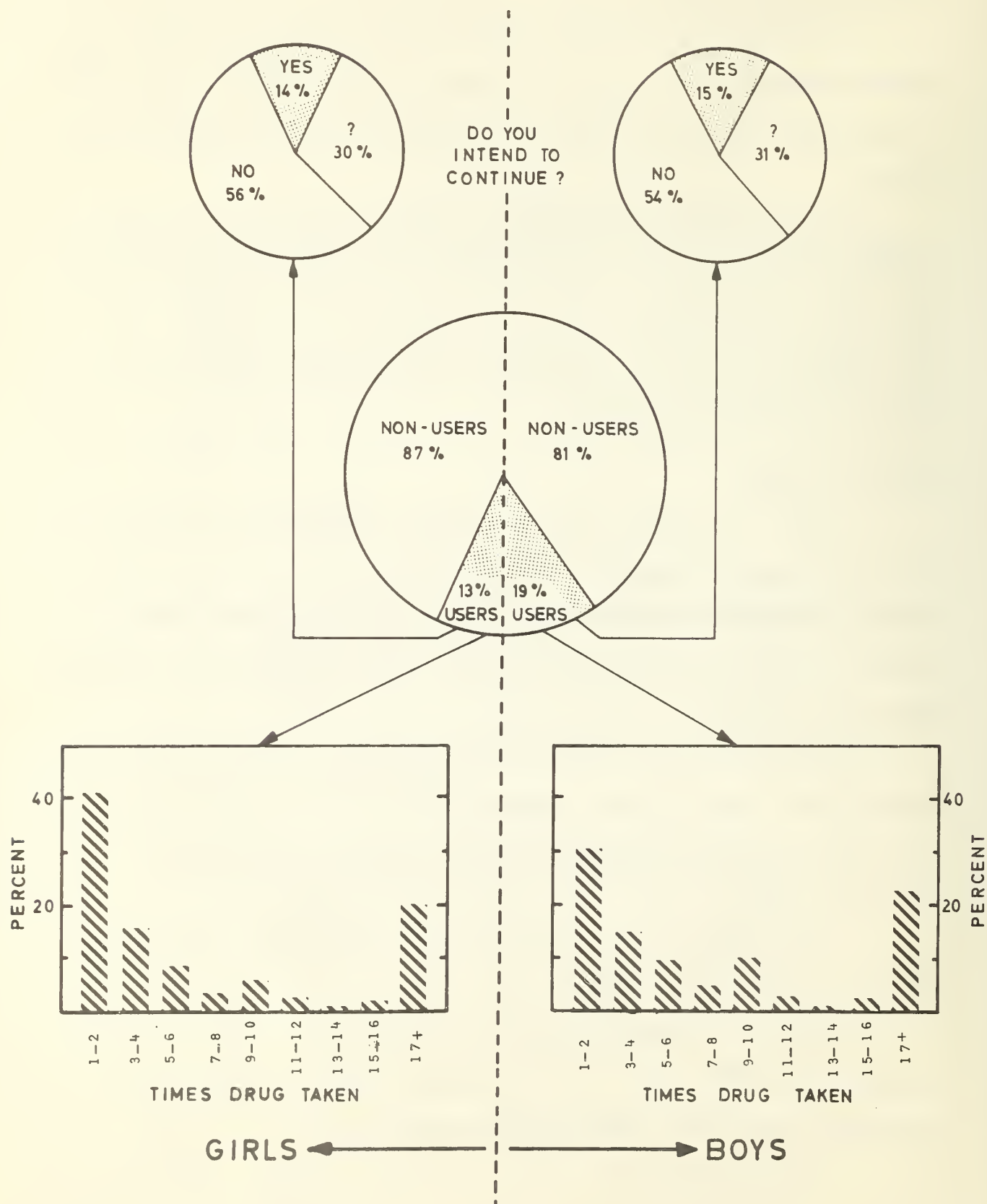
Table II.2 summarizes student drinkers' attitudes toward various aspects of alcohol consumption. These students do not feel strong social pressures to drink (5%) but about one third use alcohol to facilitate their handling of social situations. Some of their drinking is motivated by cultural expectations (Q.34-36).

The majority of boys (62%) and girls (73%) do not believe that getting "high" is good for them. However, 61% of the boys and 39% of the girls feel that getting drunk is acceptable as long as it doesn't harm others (Q.37,39).

Most students do not usually drink or attend parties with the intention of getting "high" (Q.38,40).

About 10% of student drinkers are concerned about their drinking behavior. Conversely, about 10% of non-drinking students experience some embarrassment about their unwillingness to drink (Q.43,44).

FIGURE III.1 DRUGS: INCIDENCE, CONSUMPTION RATE AND FUTURE INTENT OF CURRENT 'USERS' (Questions 47-55, 57)



## DRUGS

The large pie-graph in Figure III.1 summarizes the responses of students to Q.47-55. A student was defined as a 'user' if he had ever taken even one of the nine substances on just one occasion. (It should be noted that this section deals with drugs taken for "kicks", not those taken on prescription from a physician.)

The future intent of 'users', as revealed by their answers to Q.57a, is depicted in the two small pie-graphs at the top of Figure III.1.

The 'users' rate of consumption is presented in the two bar-graphs at the bottom of Figure III.1. These statistics were calculated from students' responses to Q.47-55. Since the percentages depicted were not calculated separately for each substance, one may interpret the graph as follows: 'X' percent of the drug-taking experience involved students taking one or more drugs 'Y' times. (For example, 40% of the drug-taking experience of girls involved their taking one or more of the drugs once or twice.)

As with tobacco and alcohol, more boys than girls have tried drugs and they tend to be heavier consumers.

About 15% of the students who have used drugs intend to continue using drugs, 30% are uncertain about future use and 55% do not intend to continue to use drugs.

### Drugs: Incidence

Figure III.2 gives the percentages of students by sex who responded "yes" to Q.47-55. Note that the percentages indicated are not independent. If, for example, a student reported using both tranquillizers and marihuana, he was "counted" twice. Thus the statistics depicted give the percentage of all students who reported having used a particular substance, regardless of how many other substances they may have used also.



FIGURE III.2 PERCENTAGE, BY SEX, OF STUDENTS WHO REPORT USING VARIOUS DRUGS  
(Questions 47-55)

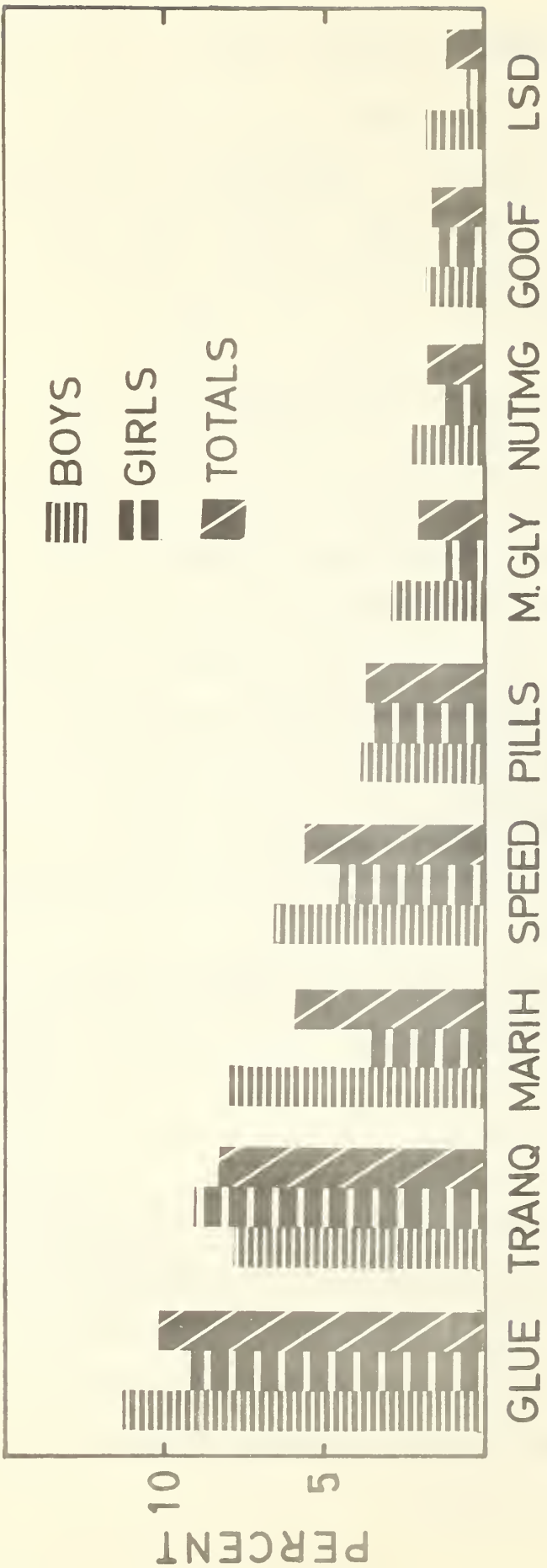
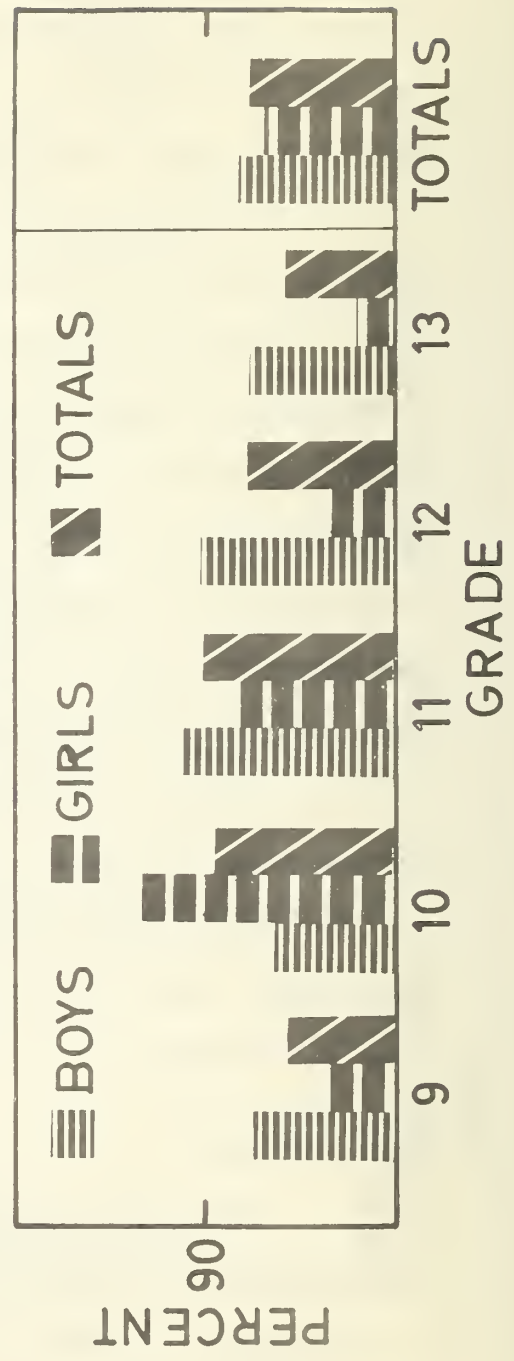


FIGURE III.3 PERCENTAGE OF REPORTED DRUG USERS, BY GRADE AND SEX, RESPONDING  
"YES" TO Q.57b, "ARE THE DRUGS YOU USE EASY TO OBTAIN?"



There are obvious differences in the percentage of students using the various substances; about 10% of the students have sniffed glue whereas only 1% report taking LSD. With the exception of tranquillizers, a greater percentage of boys report taking the substances than girls.

#### Drugs: Consumption

On the average, 'users' report taking the various substances about seven times. Tranquillizers, when used, are used slightly more frequently (average of 4-5 times) than LSD (average of 2-3 times). A sizeable portion of the drug-taking, in contrast to tobacco and alcohol consumption, consists of single occasion use. There is, however, a substantial portion of reported drug-taking (20%) which involves use on 17 or more occasions.

Obtaining drugs is apparently no barrier to their use since almost 90% of student users report that the drugs they use are easy to obtain (Q.57b). See Figure III.3.

Of those taking drugs, 74% of the boys and 68% of the girls report their drug experience as a pleasant one (Q.57c). About 43% of them report having taken one or more drugs between February and May (Q.56).

Students' reported use of non-prescription drugs, normally employed for minor physical distress, is depicted in Figure III.4 (Q.75). Girls' rate of consumption of such drugs is substantially higher than that of boys. In general, the rate of use is lower the higher the grade level. Students who use these types of drug report consuming about 10 pills per month.

#### Drugs: Attitudes

Eighteen percent of boys and 9% of girls report that they would try marihuana if offered it at a party. Nineteen percent of boys and 16% of girls are 'uncertain' about whether or not they would try it under those

- 22    FIGURE III.4    GRADE-SEX DISTRIBUTION OF RATES AT WHICH STUDENTS REPORT USE OF NON-PRESCRIPTION DRUGS NORMALLY EMPLOYED FOR MINOR PHYSICAL DISTRESS    (Question 75)

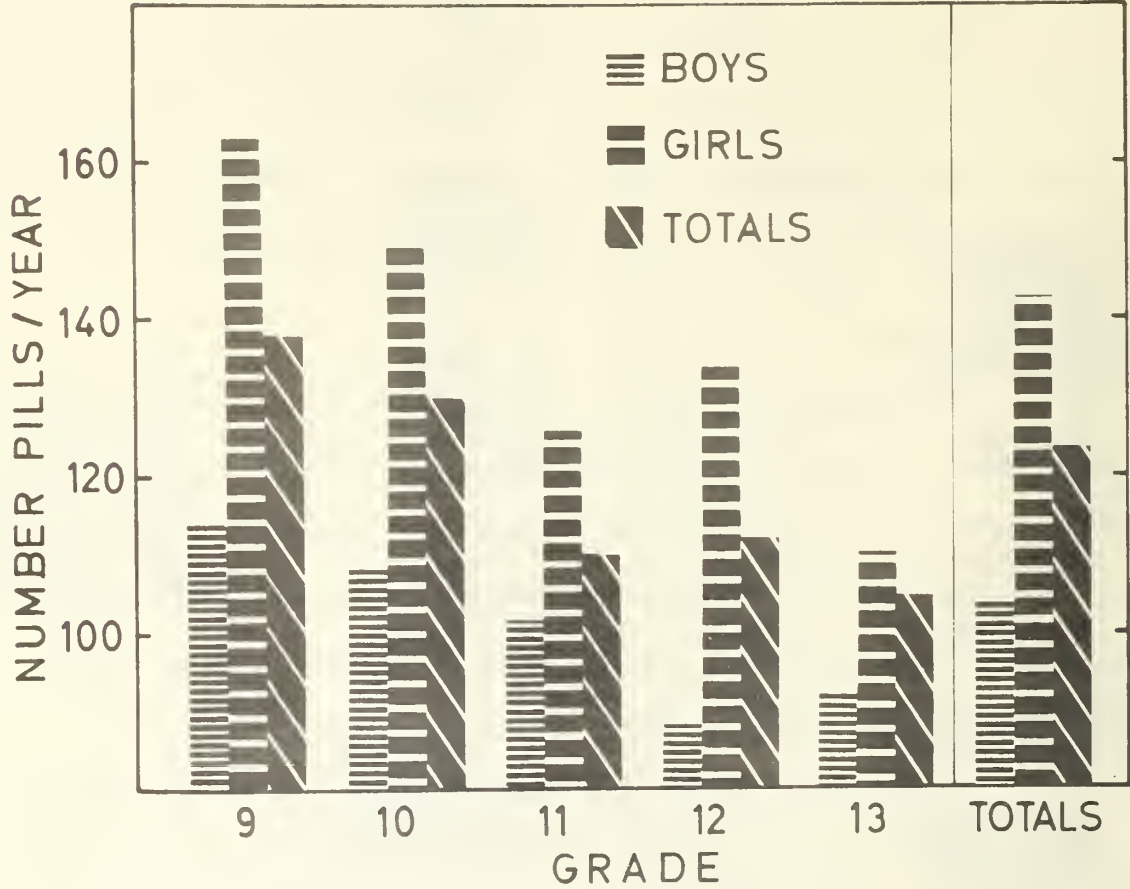


TABLE III.1    STUDENT ATTITUDES TOWARD DRUGS AND DRUG EFFECTS AS REVEALED BY THE PERCENTAGES OF STUDENTS AGREEING OR DISAGREEING WITH THE CONCEPTS OUTLINED IN QUESTIONS 71-74

- Q.71 "Turning on", or "getting high" on marihuana is a good way for a person to solve his problems.
- Q.72 An "LSD trip" is a good way to achieve better self-understanding.
- Q.73 People living in our complex society need the kind of relief that smoking marihuana can provide.
- Q.74 "Turning on" or "getting high" on drugs is a harmless source of pleasure.

<———— RATING SCALE ————>					
Question	Sex	Completely Disagree	Slightly Disagree	Slightly Agree	Completely Agree
71	M	76	9	9	6
	F	82	7	7	4
72	M	72	11	12	5
	F	79	9	9	3
73	M	63	11	14	12
	F	74	8	10	8
74	M	77	13	5	5
	F	85	8	3	4

circumstances.

Five percent of boys and 2% of girls report that they would try LSD if offered it at a party. Twelve percent of boys and 6% of girls are 'uncertain' about whether or not they would try LSD under those circumstances.

These data indicate that many students (13-30%) would probably take marihuana and some (3-12%) would probably take LSD if a suitable opportunity arose.

Table III.1 portrays students' attitudes towards marihuana and LSD as revealed by their degree of endorsement of the propositions outlined in Q. 71-74. Only 10-15% of students believe that "turning on" with marihuana or having an "LSD trip" contribute to solving personal problems or developing better self-understanding (Q.71,72). Less than 10% believe that "turning on" or "getting high" is a harmless source of pleasure (Q.74). However, about 22% regard marihuana as satisfying a need for relief developed by people living in our complex society.

## OVERVIEW

This preliminary report has presented the reader with the gross, uninterpreted facts about the incidence, consumption rate, location of use and attitudes reported by London secondary school students with reference to tobacco, alcohol and drugs. In terms of prevalence, alcohol is used by 68%, tobacco by 46% and drugs by 16% of all students. Both the prevalence and degree to which the substances are used varies, often dramatically, by both the grade level in which students are enrolled and their sex. In general, a greater percentage of boys than girls use the substances and boys are heavier consumers than girls. A greater percentage of students in the higher grades consume the substances than do students in the lower grades

and the senior grade students also consume at a greater rate than their juniors.

The data presented in this report merit careful study by the students themselves and by all of those who share responsibility for their welfare. The current use by some London students of alcohol, tobacco and drugs constitutes a significant, serious threat to their physical and psychological well-being. A precise estimate of the number of students involved to this extent requires more detailed analyses.







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Tobacco, alcohol and drug  
use reported by London  
secondary school students  
(preliminary report)

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Tobacco, alcohol and drug use  
reported by London secondary  
school students (preliminary  
report)

